Appendix E Local Authority Consultation

Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

RESPONSE TO F0196906

Request Timeline

Date	Status
19/03/2024	EIR Request received [statutory deadline 17/04/2024]
16/04/2024	Clarification Requested
18/04/2024	Clarification Received [statutory deadline 17/05/2024]
26/04/2024	EIR Response issued

Requested Information

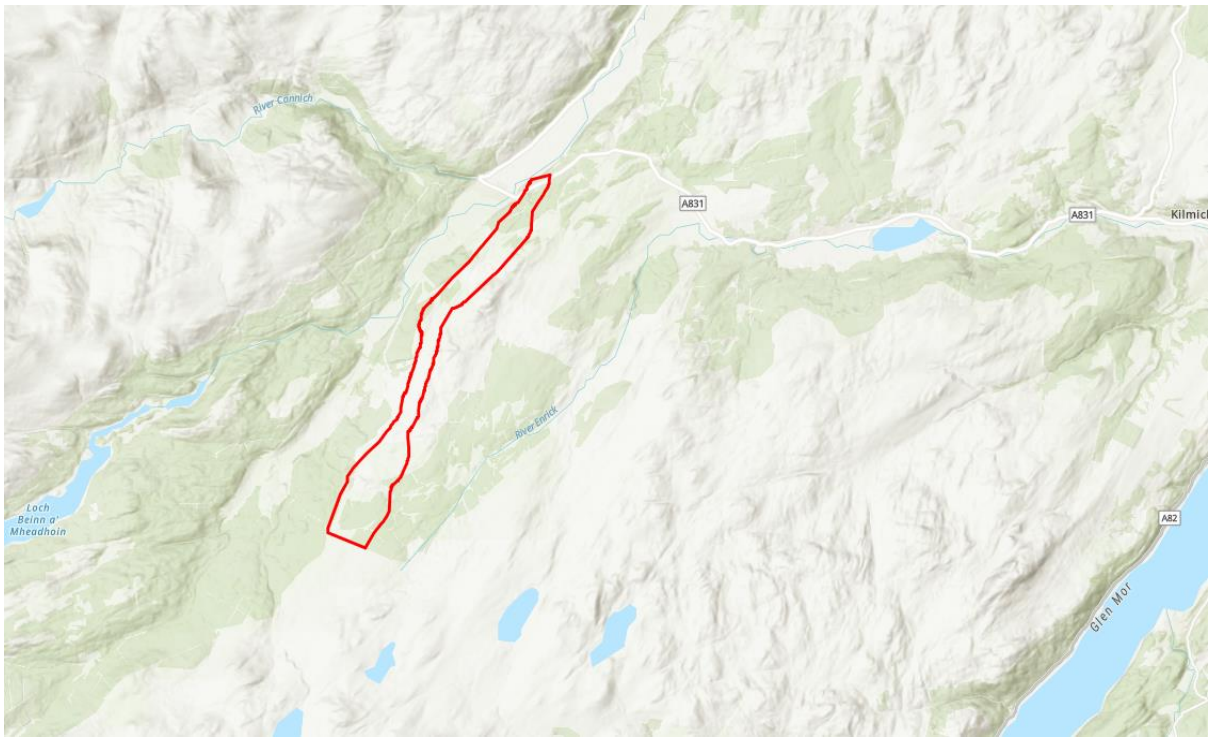
[…] near the existing Fasnakyle Substation. The approximate Grid Reference for the centre of the site is NH 32219 28423 and nearest postcode is IV4 7LZ. Please see image below for the Proposed Development (red line boundary). I have also attached Shapefiles, if that is easier.

We would be grateful if you or someone in your team would examine your available records and inform us of any information relating to potentially contaminated land within the site within a radius of no greater than 1km from the site. Information we would be looking for includes the following:

1. Any information relating to historical land use within and surrounding the vicinity of the site;
2. Any relevant contaminated land information you may hold about the site, including pollution incidents;
3. Any particular areas of sensitivity in the vicinity of the site or nearby areas for which SEPA may have particular concern.

Please let us know if there is a cost for this service.

Looking forward to hearing from you/your team.



Clarification Received

Yes please, we are interested in any permits and licenses granted by SEPA , in particular CAR activities, PPC authorisations and Waste Management licences.

Response

SEPA has handled your request under the Environmental Information (Scotland) Regulations 2004 (EIRs).

1. **Any information relating to historical land use within and surrounding the vicinity of the site;**

Please see attached: **F0196906 Licences.xlsx**

Personal information has been removed under Regulation 11(2) of the EIRs.

Please note that private drinking water supply abstractions of $10m^3$ or less are covered by a General Binding Rule (GBR). As compliance with the GBR is mandatory and no formal SEPA authorisation or registration is required, we do not hold a record of these. It is the responsibility of the local authority to maintain a register of private drinking water supplies and we suggest you contact The Highland Council for this information. Contact details are provided in 'Application of Regulation and Exceptions' section below. Regulations 10(4)(a) and 14(1)(b) apply.

Please also note, in the interest of public safety, we cannot disclose the locations of public drinking water supply abstractions. Regulation 10(5)(a) applies.

The public register documentation which SEPA held prior to December 2020 continues to be impacted by the cyber attack. We are providing you with the best information we currently have available but cannot confirm it is complete or accurate. Any use you make of this information will be at your own risk.

Please note that the Site National Grid Reference (NGR) shown on the attached spreadsheet is not necessarily the location of an abstraction point. Instead, it refers to the registered site location only. Abstraction points are found in the licence documents and are not currently held on a central database.

We hold no other information on historical land use. Regulation 10(4)(a) applies.

2. Any relevant contaminated land information you may hold about the site, including pollution incidents;

We do not hold any contaminated land information on this particular site or surrounding area. Regulation 10(4)(a) applies.

Please note, SEPA does not routinely hold this type of information. The Local Authority is the lead regulator for contaminated land and as part of its duties it is required to keep an updated inspection strategy for its area. This may include

information on previous historic contaminative uses. The Local Authority is also the lead regulator for dealing with land contamination and its remediation through planning. Therefore, we recommended you contact the Highland Council on this matter. Contact details can be found in the 'Application of Regulations and Exceptions' section below. Regulation 14(1)(b) applies.

We have found no records of pollution incidents in the requested area. Regulation 10(4)(a) applies.

3. Any particular areas of sensitivity in the vicinity of the site or nearby areas for which SEPA may have particular concern.

This information can be found on the NatureScot website here: sitelink.nature.scot/home

NatureScot can also be contacted directly for more information, contact details are given below. Regulation 9 applies.

Information Officer **NatureScot** Battleby Redgorton Perth PH1 3EW Email: foi@nature.scot www.nature.scot/about-naturescot/access-information-and-services/access-information/freedom-information-requests

You can also check waterbody status to identify any downgraded water bodies in the area that maybe of concern using the Water Classification Hub.

Waterbody specific information for surface waters and groundwaters can be found here: www.sepa.org.uk/data-visualisation/water-classification-hub/

- Guide to using the hub: www.sepa.org.uk/media/330145/classification-hub-quick-guide.pdf
- Please note this is updated annually.

Regulation 6(1)(b) applies.

Further information regarding the regulations and any exceptions applied to this information can be found below.

Application of Regulations and Exceptions

Section 39(2)

The information you are requesting is environmental information. We have applied Section 39(2) of the Freedom of Information (Scotland) Act 2002 (FOISA). We are therefore handling your request under the Environmental Information (Scotland) Regulations 2004 (EIRs).

Regulation 6(1)(b) Publicly Available and Easily Accessible

Where we have advised above that information is publicly available & easily accessible Regulation 6(1)(b) applies, the text of which is reproduced below;-

6(1) Where an applicant requests that environmental information be made available in a particular form or format, a Scottish public authority shall comply with that request unless- (b) the information is already publicly available and easily accessible to the applicant in another form or format.

Regulation 9 – Advice and assistance

Where we have issued additional information or advice this is provided in line with SEPA's duty to advise and assist under Regulation 9 of The Environmental Information (Scotland) Regulations 2004.

Regulation 10(4)(a) – Information not held

Where we have advised above that SEPA does not hold this information it is excepted under Regulation 10(4)(a) of the Environmental Information Regulations 2004. The text of which is reproduced below;

(4) A Scottish public authority may refuse to make environmental information available to the extent that;- (a) it does not hold that information when an applicant's request is received.

The exception in regulation 10(4)(a) is subject to the public interest test in regulation 10(1)(b) of the EIRs. As SEPA does not hold the information in question there is no conceivable public interest in requiring that the information be made available.

Regulation 10(5)(a) – International relations, national security, public safety

The locations of public drinking water supply abstractions are withheld from release under the terms of Regulation 10(5)(a) of the EIRs. The text of which is reproduced below.

10 (5) A Scottish public authority may refuse to make environmental information available to the extent that its disclosure would, or would be likely to, prejudice substantially, (a) international relations, defence, national security or public safety;

The Public Interest Test was carried out in relation to the information which is to be withheld under Regulation 10(5)(a) of the EIRs. It is acknowledged that there are public interest arguments in favour of disclosure of the subject information. However, there is a stronger public interest in withholding information that if disclosed would likely to prejudice substantially public safety in providing the locations of the public's drinking water supplies.

Regulation 11(2) – Personal data

Personal data relating to SEPA staff and private individuals has been redacted from the released documents in accordance with Regulation 11(2) of the EIRs and Data Protection Principles. SEPA has not withheld complete documents which contain such personal data and have released all other information within the document.

Regulation 14(1)(b) – Other authority

As confirmed above SEPA does not hold this information. In accordance with the terms of the EIRs regulation 14(1)(b), The text of which is reproduced below.

14(1) Where a Scottish public authority has received a request to make environmental information available and does not hold that information but believes

that another public authority holds the information requested then it shall (b) supply the applicant with the name and address of that other authority,

We advise that you contact:
Freedom of Information Officer
The Highland Council
Headquarters
Glenurquhart Road
Inverness
IV3 5NX
www.highland.gov.uk/info/704/data_protection_and_freedom_of_information/340/freedom_of_information

What to expect when making a Request for Information
Each request for information, under The Environmental Information (Scotland) Regulations 2004 or the Freedom of Information (Scotland) Act 2002, is formally logged by the authority. The request falls within a process that has two internal stages carried out by the authority; a right of appeal to the Scottish Information Commissioner followed by an appeal to the Court of Session on a point of law only.

- Stage 1 – Request for information
- Stage 2 – Formal Review
- Stage 3 – Appeal for decision by Scottish Information Commissioner (OSIC)
- Stage 4 – Appeal to the Court of Session on a point of law only.

Each enquiry will have a unique Reference Number which should be quoted when you contact us.

How you will be kept informed
You will receive an acknowledgement for your request and Formal Review. We aim to reply to all enquiries promptly, within 20 working days. You will receive a response along with the requested information and/or an explanation regarding any withheld information. We may also contact you if we require clarification or if we are issuing a fees notice.

What happens once your enquiry has been responded to?
If you are not happy with the response or have failed to receive a response, you have the right to request a Formal Review from SEPA.

Guidance on your rights and how to ask for a review is on the Scottish Information Commissioner's website; http://itspublicknowledge.info/YourRights/Askingforareview.aspx

We will ensure that all personal data is processed, recorded and retained in accordance with the requirements of the Data Protection Act 2018 throughout the handling of each request. You have a right to see information about yourself via submitting a Subject Access Request under the Data Protection Act 2018.

What to do if you are not happy with how your enquiry and review were handled
If you are unsatisfied with our Formal Review response or have failed to receive a response, you can then appeal to the Scottish Information Commissioner via the links below.

www.itspublicknowledge.info/appeal
http://www.itspublicknowledge.info/home/ContactUs/ContactUs.aspx

Should you wish to appeal against the Scottish Information Commissioner's decision, you have the right to appeal to the Court of Session on a point of law only. Any such appeal must be made within 42 days after the date of intimation of the decision.

The Highland Council
Comhairle na Gàidhealtachd

Océane Mbaguta
Graduate Environmental Scientist
AECOM
177 Bothwell Street
GLASGOW
G2 7ER

Please ask for: Scott Barclay
Email: scott.barclay@highland.gov.uk
Our Ref: 24/07
Date: 12 April 2024

Dear Océane

FASNAKYLE SUBSTATION
NATIONAL GRID REFERENCE: 230747: 824403

Thank you for your Environmental Information Request for the above site received by this service on 19 March 2024. Having examined the following Ordnance Survey, Pre-War County Series maps and service records, I am now able to provide the following information in answer to your specific questions:

• Any recorded current or historical environmental problems at the site and adjacent areas with regards to ground contamination or solid waste arisings;

Having reviewed our collection of historical maps and database of potentially contaminative sources, I can confirm that we hold records of two potential sources of contaminated land within your study boundary – as detailed below:

● **Borrow Pit/ Workings** – Our Ref: 24-MIN-2003 centred at National Grid Reference 232365: 827693. Sourced from our current OS Maps and also from Planning Application 10/01752/FUL - Borrow pit for the extraction of crushed rock material for construction of new temporary and upgraded existing access tracks - Land 1.3KM E Of Lillieoak, Tomich, Cannich. Documents publicly available in support of this Planning Application can be viewed via the Council's WAM – link: https://wam.highland.gov.uk/wam/ - you can enter the Planning Application Reference in the Search box and click 'Search'.
● **Quarry** – Our Ref: 24-MIN-2004 centred at National Grid Reference 230831: 823944. Sourced from our Historical Maps E5c Scale 1: 10560 and Epochm7 Scale 1: 10000 both dated 1971 and Current OS Mastermap. The feature is labelled as 'Quarry (dis)' on the 1971 maps but then labelled as 'Quarry' in the Current OS Mastermap.

We hold no details of any potentially contaminative sources within the immediate surrounding land to your study site. Furthermore, we hold no details of any current/ former landfills offsite within 250m.

Other than the two potentially contaminative sources identified onsite within your study site, we are not aware of any recorded current or historical environmental problems at the site and adjacent areas with regards to ground contamination or solid waste arisings.

• The presence and location of any historical landfills within 500m of the site boundary;
Having consulted our records, we hold no details of any historical landfills within 500m of the site boundary.

• Any particular areas of sensitivity in the vicinity of the site or nearby areas for which the council may have particular concern;

Having consulted our Ecology GIS map layers, we hold details of the following ecologically sensitive areas within 250m of the site:

Special Protection Areas – 0 sites

Special Areas of Conservation – 0 sites

Sites of Special Scientific Interest - 0 sites

RAMSAR Wetlands of International Importance – 0 sites

• Any other relevant environmental information you may hold about the site.
We hold no further relevant environmental information about the site.

The Council cannot be held liable for any error or omission contained within this report, nor does the information represent or replace the requirement of a site investigation. Your Information Request has been quoted at an hourly rate of £81 plus VAT – please note that this charge has now increased to £87 plus VAT per hour as for any new Information Requests received after 1 April 2024 for the new financial year. Given that we received your Information Request prior to 1 April 2024, you will be charged at the hourly rate of £81 plus VAT. In this instance, one (1) hour was taken to prepare this information request. An Invoice for £81 plus VAT shall be raised by colleagues in Business Support. I hope the information presented is of interest.

Should you have any queries, please do not hesitate to contact me on 01463 644599.

Yours sincerely

Scott Barclay
Information Technician (Contaminated Land)
Environmental Health welcomes your feedback. Please help us improve our service by taking our short customer survey by clicking on this link
https://www.surveymonkey.com/s/highlandeh

Authorisation No	Site	Authorisation Status	Authorisation Status Date	Legislation	Category	Authorisation Holder	Authorisation Activity	Site NGR
CAR/L/1002065	Cannich Village --- Cannich Village, Beauly	Granted	April 1, 2006	CAR	Licence	SCOTTISH WATER	Bed Reinforcement; Sewage (Public) Primary; Sewage (Public) Combined Sewer Overflow (CSO)	NH 34533 31522
CAR/L/1112022	Allt Curruchan Hydro Scheme, near Tomich --- GUISACHAN ESTATE, NEAR TOMICH	Granted	October 10, 2013	CAR	Licence	PRIVATE CONTACT	Abstraction Hydropower; Impoundment Hydropower; Abstraction Return	NH 31200 27740
CAR/R/1013050	The Old Brewery, Tomich, Beauly --- THE OLD BREWERY, TOMICH, BEAULY IV4 7LY	Granted	September 13, 2006	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 31068 27672
CAR/R/1015685	Riverside Cottage, Nr Kerrow House, Cannich --- RIVERSIDE COTTAGE, NR KERROW HOUSE, CANNICH, BEAULY IV4 7NA	Granted	December 12, 2006	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 32827 30590
CAR/R/1015686	Fishermans Cottage & Kerrow House, Cannich --- FISHERMANS COTTAGE &, KERROW HOUSE, CANNICH, Beauly IV4 7NA	Granted	December 7, 2006	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 32962 30633
CAR/R/1017987	Fasnakyle Power Station, Cannich --- FASNAKYLE POWER STATION, CANNICH IV4 7NB	Granted	April 18, 2007	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 31870 29596
CAR/R/1019982	The Keepers Cottage, Kerrow, Cannich --- the keepers cottage, KERROW, CANNICH, Beauly IV4 7NA	Granted	July 13, 2007	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 33230 30410
CAR/R/1024228	Fasnakyle Water Supply, Fasnakyle Village --- FASNAKYLE WATER SUPPLY, FASNAKYLE VILLAGE, STRATHGLASS	Granted	February 11, 2008	CAR	Registration	GREGORY'S PLANT HIRE & CIVIL ENGINEERING	Pipeline / Cable Crossing	NH 31750 28860
CAR/R/1042450	Comar Lodge, Cannich IV4 7NB --- COMAR LODGE, CANNICH, BEAULY IV4 7NB	Granted	June 25, 2009	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 33290 31310
CAR/R/1045883	Birchwood House, Kerrow, Beauly --- Birchwood House, Kerrow, Beauly IV4 7NA	Granted	June 12, 2009	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 33854 30836
CAR/R/1047179	Invercannich House, by Beauly --- INVERCANNICH HOUSE, CANNICK, BY BEAULY, INVERNESS SHIRE IV4 7LS	Granted	May 29, 2009	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 34536 32102
CAR/R/1064963	Balmore Cottage, Beauly --- BALMORE COTTAGE, BEAULY IV4 7LS	Granted	June 12, 2009	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 35164 32733
CAR/R/1066062	Garage Flat, Birchwood House, Kerrow, Beauly --- GARAGE FLAT, BIRCHWOOD HOUSE, KERROW, BEAULY IV4 7NA	Granted	June 12, 2009	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 33854 30824
CAR/R/1069119	Achnahegleish, Guisachan Farm, Tomich, Beauly --- ACHNAHEGLEISH, GUISACHAN FARM, TOMICH, By Beauly IV4 7LY	Granted	October 21, 2009	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Tertiary	NH 31325 26965
CAR/R/1087657	Crimmond, Cannich, Beauly --- Crimmond, Cannich, BEAULY IV4 7LT	Granted	September 20, 2010	CAR	Registration	MACANDREW AND JENKINS	Sewage (Public) Primary	NH 34184 31635
CAR/R/1093246	Mill Cottage, Cannich, Beauly --- Mill Cottage, Cannich, BEAULY IV4 7LT	Granted	May 18, 2011	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 34165 31674
CAR/R/1093979	Proposed Dwelling, Plot 1 The Old Brewery --- Seasons View Tomich, Inverness- shire, Cannich IV4 7LY	Granted	June 13, 2011	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 31230 26990
CAR/R/1102135	Eng Wks @ BF Access Track Spur 10N, Guisachan --- BF 76 Access Track Spur 10N, Guisachan Forest, Guisachan	Granted	April 25, 2012	CAR	Registration	PRIVATE CONTACT	Bridging Culvert	NH 30440 24730
CAR/R/1105326	The Brewers Cottage, Tomich, by Cannich --- THE BREWERS COTTAGE, TOMICH, CANNICH, BEAULY IV4 7LY	Granted	August 3, 2012	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 31067 27685
CAR/R/1105400	Corrimony Wind Farm Grid Connection --- 299-301 Duke Street, Barrow in Furness LA14 5UL	Granted	August 14, 2012	CAR	Registration	FREEDOM AGRILEK	Pipeline / Cable Crossing	NH 32100 29490
CAR/R/1105401	Corrimony Wind Farm Grid Connection --- 299-301 Duke Street, Barrow in Furness LA14 5UL	Granted	August 14, 2012	CAR	Registration	FREEDOM AGRILEK	Pipeline / Cable Crossing	NH 32100 29490
CAR/R/1105402	Corrimony Wind Farm Grid Connection --- 299-301 Duke Street, Barrow in Furness LA14 5UL	Granted	August 14, 2012	CAR	Registration	FREEDOM AGRILEK	Pipeline / Cable Crossing	NH 32100 29490
CAR/R/1111539	The Bothy, Fasnakyle, Glen Affric Rd, Cannich --- The Bothy, Fasnakyle, Glenaffric Road, Cannich IV4 7NB	Granted	May 7, 2013	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 31340 28900
CAR/R/1111966	Rivendell House, Fasnakyle, Beauly --- Rivendell, Fasnakyle, BEAULY IV4 7NB	Granted	May 24, 2013	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 31660 29300
CAR/R/1125667	New House, E of Lodge Cot, Fasnakyle, Cannich --- East of Lodge Cottage, Fasnakyle, Cannich	Granted	September 11, 2014	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 31630 29280
CAR/R/1142459	Kerrow Burn Eng Wks, Cannich, By Beauly --- A831, Cannich by Beauly IV4 7LJ	Granted	December 15, 2015	CAR	Registration	PRZEMYSLAW WUWER	Bridging Culvert	NH 34510 31310
CAR/R/1147530	Blue Roan, Cannich, Beauly --- Blue Roan, Cannich, Beauly IV4 7LS	Granted	June 10, 2016	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 34125 31985
CAR/R/1149047	Dunromin, Cannich --- Dunromin, Cannich IV4 7LS	Granted	July 27, 2016	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 34230 32009
CAR/R/1159387	Conversion of Balcladaich Sawmill, Cannich --- Conversion of Balclaadaich Sawmill, Tomich, Cannich IV4 7LY	Granted	July 17, 2017	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 29924 26110
CAR/R/1161046	Lillieoak, Tomich, Beauly --- Lillieoak, Tomich, Strathglass, Beauly IV4 7LY	Granted	September 14, 2017	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 31271 27944
CAR/R/1172253	Birchwood + Rowan Cottages,Cannich,Beauly --- Birchwood + Rowan Cottages, Kerrow House, Cannich, Beauly IV4 7NA	Granted	September 25, 2018	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 32907 30611
CAR/R/1173101	Hillcrest,Tomich,Strathglass,Inverness --- Hillcrest, Tomich, Strathglass, Inverness IV4 7LY	Granted	October 12, 2018	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 31271 27987
CAR/R/1175136	Kirkfield, Tomich --- Kirkfield, Tomich IV4 7LY	Granted	December 11, 2018	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Primary	NH 31277 27155
CAR/R/1183138	New House at Fasnakyle, Cannich --- New House at Fasnakyle, Cannich IV4 7NB	Granted	June 24, 2019	CAR	Registration	PRIVATE CONTACT	Sewage (Private) Secondary	NH 31972 29438
CAR/R/3004358	POSTMANS COTTAGE CANNICH BEAULY IV4 7NE	Granted	April 21, 2022	CAR	Registration		Point Source - Existing Sewage Treatment System (PSTS)	NH 35809 32339
CAR/R/3011453	BALQUIDDER KERROW CANNICH BEAULY IV4 7NA	Granted	September 25, 2023	CAR	Registration		Point Source - Existing Sewage Treatment System (PSTS)	NH 33046 30385
CAR/R/5005367	Grey Bank Repairs at Fasnakyle Power Station, IV4 7NB	Granted	June 14, 2023	CAR	Registration	SSE Renewables	Engineering - Grey bank restoration / reprofiling	NH 3194 2962
CAR/R/5005839	Postman's Cottage, Cannich, Beauly, IV4 7NE	Granted	July 25, 2023	CAR	Registration		Point Source - New Sewage Treatment System to Water	NH 3581 3234
PPC/B/1102945	Gregory's Plant Hire - Mobile Plant --- Chairein Lodge, Cannich, By Beauly, Inverness-Shire IV4 7LT	Granted	August 17, 2012	PPC	Licence	GREGORYS PLANT HIRE	3.5(a)	NH 33894 31403
PSTS/cdb532	Challenger Lodge, Tomich, Cannich, Beauly, IV4 7LY	Granted	July 8, 2021	CAR	Registration		Point Source - Existing Sewage Treatment System (PSTS)	NH 29853 25981
WML/XS/2000306	CHAIREIN LODGE , CANNICH, BEAULY, IV4 7LT	Granted	July 2, 2021	Waste	Exemption	Gregory's Plant & Civils	Paragraph 30 - Burning plant tissue waste on land in the open	NH 33897 31405

Appendix F BGS Borehole Records

bam ritchies

BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No
BF74B-A
Sheet 1 of 2
Status
Final
29/11/2011

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	14/10/2011	Initial Boring Diameter:	160mm	Coordinates:	E 230955.087 m National Grid
Date Complete:	15/10/2011	Initial Core Diameter	86mm		N 825428.835 m National Grid
Hole Type:	RO+RC	Rotary Casing Type	Robit	Ground Level:	260.20 m OD
Equipment:	DB520 Boart	Core Barrel:	T2-101	Plunge:	90 °
		Core Bit:	Diamond Impreg	Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install -ation
Very soft spongy dark brown pseudo-fibrous PEAT.										
SAND & GRAVEL. (Driller's description)		1.10	259.10							
Very strong grey fine to medium grained PSAMMITE, slightly weathered with some yellowish brown staining on fractures. Occasional micaceous bands. Bedding fractures are inclined between 20deg and 30deg and are very closely to closely spaced, planar, smooth, tight and frequently micaceous.		1.70	258.50	1.70-3.00				100 (94) 75	7	
From 3.00m to 4.30m, with frequent pinkish white crystalline quartz bands.				3.00-3.50				100 (0) 0		
				3.50-4.70				100 (16) 0	NI	
From 4.30m, locally more weathered with some weaker and broken bands and patches of orangish brown staining. Dark grey in colour. Sub vertical and sub horizontal fractures.				4.70-5.00				100 (0) 0		
				5.00-6.50				100 (70) 27	12	
From 6.00m to 6.50m, becomes medium strong to strong and micaceous.										
From 6.50m, with some occasional bands of crystalline quartz.				6.50-7.70				100 (79) 63	7	
				7.70-8.00				100 (100) 100		

Continued next sheet

U	Undisturbed U100 / U86 Sample	Core Run		S	Standard Penetration Test	CP	Cable Percussion
P	Piston Sample	TCR	Total Core Recovery	C	Cone Penetration Test	RO	Rotary Open Hole
TW	Thin Wall Sample	SCR	Solid Core Recovery	32	N for full 300mm penetration	RC	Rotary Cored
D	Small Disturbed Sample	RQD	Rock Quality Designation	/175	For given penetration (mm)	SO	Sonic Open holed
B	Bulk Disturbed Sample	FI	Fracture Index	/25#	Seating blows only (mm)	CONP	Continuous Percussion
LB	Large Bulk Disturbed Sample	NI	Non Intact	PP	Pocket Penetrometer Test	WLS	Windowless Sampler
W	Water Sample	U*	Blows to drive U100 / U86	K	Permeability Test (m/s)	Installation	
G	Gas Sample	UT	Thin wall undisturbed sample	L	Packer Test (Lugeons)		Slotted Pipe / Sand Filter
C	Core	NA	Not Applicable	IV	Insitu Vane Test. Peak		Piezometer Tip / Bentonite Seal
J	Amber Jar Sample	NR	No Recovery	IVR	Insitu Vane Test. Residual		Grout / Gravel Filter
V	Vial Sample	NP	No Penetration	HV	Hand Vane Test. Peak		Concrete
				HVR	Hand Vane Test. Residual		

bam ritchies

BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No
BF74B-A
Sheet 2 of 2
Status
Final
29/11/2011

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	14/10/2011	Initial Boring Diameter:	160mm	Coordinates:	E 230955.087 m National Grid
Date Complete:	15/10/2011	Initial Core Diameter	86mm		N 825428.835 m National Grid
Hole Type:	RO+RC	Rotary Casing Type	Robit	Ground Level:	260.20 m OD
Equipment:	DB520 Boart	Core Barrel:	T2-101	Plunge:	90 °
		Core Bit:	Diamond Impreg	Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install -ation
Very strong grey fine to medium grained PSAMMITE, slightly weathered with some yellowish brown staining on fractures. Occasional micaceous bands. Bedding fractures are inclined between 20deg and 30deg and are very closely to closely spaced, planar, smooth, tight and frequently micaceous.				8.00-9.50				100 (83) 77	5	
				9.50-10.20				100 (93) 71	8	
				10.20-10.70				100 (100) 100		
				10.70-11.70				100 (100) 85	6	
				11.70-12.70				100 (90) 75		
				12.70-13.70				100 (90) 60	9	
End of Borehole at 13.70 m		13.70	246.50							

U	Undisturbed U100 / U86 Sample	▪	Core Run	S	Standard Penetration Test	CP	Cable Percussion
P	Piston Sample	TCR	Total Core Recovery	C	Cone Penetration Test	RO	Rotary Open Hole
TW	Thin Wall Sample	SCR	Solid Core Recovery	32	N for full 300mm penetration	RC	Rotary Cored
D	Small Disturbed Sample	RQD	Rock Quality Designation	/175	For given penetration (mm)	SO	Sonic Open holed
B	Bulk Disturbed Sample	FI	Fracture Index	/25#	Seating blows only (mm)	CONP	Continuous Percussion
LB	Large Bulk Disturbed Sample	NI	Non Intact	PP	Pocket Penetrometer Test	WLS	Windowless Sampler
W	Water Sample	U*	Blows to drive U100 / U86	K	Permeability Test (m/s)	Installation	
G	Gas Sample	UT	Thin wall undisturbed sample	L	Packer Test (Lugeons)		Slotted Pipe / Sand Filter
C	Core	NA	Not Applicable	IV	Insitu Vane Test. Peak		Piezometer Tip / Bentonite Seal
J	Amber Jar Sample	NR	No Recovery	IVR	Insitu Vane Test. Residual		Grout / Gravel Filter
V	Vial Sample	NP	No Penetration	HV	Hand Vane Test. Peak		Concrete
				HVR	Hand Vane Test. Residual		

bam ritchies

BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No
BF74B-B
Sheet 1 of 1
Status
Final
29/11/2011

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	15/10/2011	Initial Boring Diameter:	160mm	Coordinates:	E 230962.005 m National Grid
Date Complete:	15/10/2011	Initial Core Diameter			N 825423.002 m National Grid
Hole Type:	RO	Rotary Casing Type	Robit	Ground Level:	260.57 m OD
Equipment:	DB520 Boart	Core Barrel:		Plunge:	90 °
		Core Bit:		Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install -ation
Very soft spongy dark brown pseudo-fibrous PEAT.										
		1.00	259.57							
SAND & GRAVEL. (Driller's description)										
		2.80	257.77							
PSAMMITE. (Driller's description) (Open holed)										
		6.00	254.57							
End of Borehole at 6.00 m										

U	Undisturbed U100 / U86 Sample		Core Run	S	Standard Penetration Test	CP	Cable Percussion
P	Piston Sample	TCR	Total Core Recovery	C	Cone Penetration Test	RO	Rotary Open Hole
TW	Thin Wall Sample	SCR	Solid Core Recovery	32	N for full 300mm penetration	RC	Rotary Cored
D	Small Disturbed Sample	RQD	Rock Quality Designation	/175	For given penetration (mm)	SO	Sonic Open holed
B	Bulk Disturbed Sample	FI	Fracture Index	/25#	Seating blows only (mm)	CONP	Continuous Percussion
LB	Large Bulk Disturbed Sample	NI	Non Intact	PP	Pocket Penetrometer Test	WLS	Windowless Sampler
W	Water Sample	U*	Blows to drive U100 / U86	K	Permeability Test (m/s)	Installation	
G	Gas Sample	UT	Thin wall undisturbed sample	L	Packer Test (Lugeons)		Slotted Pipe / Sand Filter
C	Core	NA	Not Applicable	IV	Insitu Vane Test. Peak		Piezometer Tip / Bentonite Seal
J	Amber Jar Sample	NR	No Recovery	IVR	Insitu Vane Test. Residual		Grout / Gravel Filter
V	Vial Sample	NP	No Penetration	HV	Hand Vane Test. Peak		Concrete
				HVR	Hand Vane Test. Residual		

bam ritchies

BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No
BF74B-C
Sheet 1 of 1
Status
Final
29/11/2011

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	15/10/2011	Initial Boring Diameter:	160mm	Coordinates:	E 230956.253 m National Grid
Date Complete:	15/10/2011	Initial Core Diameter			N 825416.106 m National Grid
Hole Type:	RO	Rotary Casing Type	Robit	Ground Level:	259.96 m OD
Equipment:	DB520 Boart	Core Barrel:		Plunge:	90 °
		Core Bit:		Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install -ation
Very soft spongy dark brown fibrous PEAT.										
		1.00	258.96							
SAND & GRAVEL. (Driller's description)										
		1.80	258.16							
PSAMMITE. (Driller's description) (Open holed)										
		6.00	253.96							
End of Borehole at 6.00 m										

U	Undisturbed U100 / U86 Sample		Core Run	S	Standard Penetration Test	CP	Cable Percussion
P	Piston Sample	TCR	Total Core Recovery	C	Cone Penetration Test	RO	Rotary Open Hole
TW	Thin Wall Sample	SCR	Solid Core Recovery	32	N for full 300mm penetration	RC	Rotary Cored
D	Small Disturbed Sample	RQD	Rock Quality Designation	/175	For given penetration (mm)	SO	Sonic Open holed
B	Bulk Disturbed Sample	FI	Fracture Index	/25#	Seating blows only (mm)	CONP	Continuous Percussion
LB	Large Bulk Disturbed Sample	Ni	Non Intact	PP	Pocket Penetrometer Test	WLS	Windowless Sampler
W	Water Sample	U*	Blows to drive U100 / U86	K	Permeability Test (m/s)	Installation	
G	Gas Sample	UT	Thin wall undisturbed sample	L	Packer Test (Lugeons)		Slotted Pipe / Sand Filter
C	Core	NA	Not Applicable	IV	Insitu Vane Test. Peak		Piezometer Tip / Bentonite Seal
J	Amber Jar Sample	NR	No Recovery	IVR	Insitu Vane Test. Residual		Grout / Gravel Filter
V	Vial Sample	NP	No Penetration	HV	Hand Vane Test. Peak		Concrete
				HVR	Hand Vane Test. Residual		

bam ritchies

BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No BF75-C
Sheet 1 of 2

Status Final
29/11/2011

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	24/10/2011	Initial Boring Diameter:	160mm	Coordinates:	E 230643.500 m National Grid
Date Complete:	25/10/2011	Initial Core Diameter	84mm		N 825052.000 m National Grid
Hole Type:	RC	Rotary Casing Type	Robit	Ground Level:	274.47 m OD
Equipment:	DB520 Boart	Core Barrel:	T2-101	Plunge:	90 °
		Core Bit:	Diamond Impreg	Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install -ation
Very soft spongy dark brown pseudo-fibrous PEAT.										
SAND & GRAVEL. (Driller's description)		1.00	273.47							
		1.30	273.17	1.30-2.80				100 (100) 100	3	
Very strong locally extremely strong grey fine grained PSAMMITE, mostly fresh occasionally slightly weathered with some yellowish brown staining. Some bands of crystalline quartz and sub vertical mineral veins and occasional micaceous bands. Bedding fractures are inclined between 20deg and 30deg and are closely to medium spaced, planar, smooth, tight and clean.				2.80-4.30				100 (85) 67	7	
				4.30-5.80				100 (65) 65	3	
From 5.65m to 7.30m, becomes pinkish white crystalline quartz.				5.80-7.30				100 (33) 20	12	
From 7.30m to 7.80m, interbanded psammite and crystalline quartz with weathering along the fractures.				7.30-8.80				100 (60) 30	15	
Continued next sheet										

U	Undisturbed U100 / U86 Sample	Core Run		S	Standard Penetration Test	CP	Cable Percussion
P	Piston Sample	TCR	Total Core Recovery	C	Cone Penetration Test	RO	Rotary Open Hole
TW	Thin Wall Sample	SCR	Solid Core Recovery	32	N for full 300mm penetration	RC	Rotary Cored
D	Small Disturbed Sample	RQD	Rock Quality Designation	/175	For given penetration (mm)	SO	Sonic Open holed
B	Bulk Disturbed Sample	FI	Fracture Index	/25#	Seating blows only (mm)	CONP	Continuous Percussion
LB	Large Bulk Disturbed Sample	NI	Non Intact	PP	Pocket Penetrometer Test	WLS	Windowless Sampler
W	Water Sample	U*	Blows to drive U100 / U86	K	Permeability Test (m/s)	Installation	
G	Gas Sample	UT	Thin wall undisturbed sample	L	Packer Test (Lugeons)		Slotted Pipe / Sand Filter
C	Core	NA	Not Applicable	IV	Insitu Vane Test. Peak		Piezometer Tip / Bentonite Seal
J	Amber Jar Sample	NR	No Recovery	IVR	Insitu Vane Test. Residual		Grout / Gravel Filter
V	Vial Sample	NP	No Penetration	HV	Hand Vane Test. Peak		Concrete
				HVR	Hand Vane Test. Residual		

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BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No BF75-C
Sheet 2 of 2

Status Final
29/11/2011

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	24/10/2011	Initial Boring Diameter:	160mm	Coordinates:	E 230643.500 m National Grid
Date Complete:	25/10/2011	Initial Core Diameter	84mm		N 825052.000 m National Grid
Hole Type:	RC	Rotary Casing Type	Robit	Ground Level:	274.47 m OD
Equipment:	DB520 Boart	Core Barrel:	T2-101	Plunge:	90 °
		Core Bit:	Diamond Impreg	Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install -ation
Very strong locally extremely strong grey fine grained PSAMMITE, mostly fresh occasionally slightly weathered with some yellowish brown staining. Some bands of crystalline quartz and sub vertical mineral veins and occasional micaceous bands. Bedding fractures are inclined between 20deg and 30deg and are closely to medium spaced, planar, smooth, tight and clean. From 8.80m, with some closed sub vertical undulating fractures and occasional sub vertical joints with altered mineral coatings.				8.80-10.30				100 (40) 17	14	
									6	
				10.30-11.30				100 (62) 40		
				11.30-12.80				100 (80) 64	7	
				12.80-13.30				100 (80) 62		
End of Borehole at 13.30 m		13.30	261.17							

U	Undisturbed U100 / U86 Sample	Core Run		S	Standard Penetration Test	CP	Cable Percussion
P	Piston Sample	TCR	Total Core Recovery	C	Cone Penetration Test	RO	Rotary Open Hole
TW	Thin Wall Sample	SCR	Solid Core Recovery	32	N for full 300mm penetration	RC	Rotary Cored
D	Small Disturbed Sample	RQD	Rock Quality Designation	/175	For given penetration (mm)	SO	Sonic Open holed
B	Bulk Disturbed Sample	FI	Fracture Index	/25#	Seating blows only (mm)	CONP	Continuous Percussion
LB	Large Bulk Disturbed Sample	NI	Non Intact	PP	Pocket Penetrometer Test	WLS	Windowless Sampler
W	Water Sample	U*	Blows to drive U100 / U86	K	Permeability Test (m/s)	Installation	
G	Gas Sample	UT	Thin wall undisturbed sample	L	Packer Test (Lugeons)		Slotted Pipe / Sand Filter
C	Core	NA	Not Applicable	IV	Insitu Vane Test. Peak		Piezometer Tip / Bentonite Seal
J	Amber Jar Sample	NR	No Recovery	IVR	Insitu Vane Test. Residual		Grout / Gravel Filter
V	Vial Sample	NP	No Penetration	HV	Hand Vane Test. Peak		Concrete
				HVR	Hand Vane Test. Residual		

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BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No BF78-A Sheet 1 of 2

Status Final 18/05/2012

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	10/03/2012	Initial Boring Diameter:	160mm	Coordinates:	E 230037.600 m National Grid
Date Complete:	10/03/2012	Initial Core Diameter	86mm		N 823930.400 m National Grid
Hole Type:	RC	Rotary Casing Type	Robit	Ground Level:	310.20 m OD
Equipment:	Boart DB520	Core Barrel:	T2101	Plunge:	90 °
		Core Bit:	Diamond Impreg	Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install'-ation
MADE GROUND: Dark grey sub angular to angular cobbles and boulders of psammite.										
Dark brown locally grey fine to coarse SAND and sub angular to angular fine to coarse GRAVEL of psammite with occasional sub angular to angular cobbles of psammite.		0.40	309.80							
Badly broken PSAMMITE (Driller's Description) (open holed).		1.10	309.10	D 1.00 D 1.00						
Very strong grey and locally dark grey fine to medium grained PSAMMITE, mostly fresh with some mineral infill and surface staining along joints and fractures. Occasional micaceous bands and thinly foliated mica schist bands throughout. 10-15mm crystalline quartz veins throughout. Joints are inclined between 74deg and 85deg, closely spaced, planar, smooth, tight with dark green and dark grey surface staining and occasional crystalline quartz infill.		2.50	307.70	2.50-3.50				100 (25) 20	NI	
									4	
				3.50-4.50				100 (0) 0	6	
									NI	
				4.50-5.50				100 (20) 10	10	
				5.50-6.50				100 (75) 65	6	
				6.50-7.50				100 (60) 45	7	
				7.50-8.50				100 (35) 20		

Continued next sheet

U	Undisturbed U100 / U86 Sample		Core Run	S	Standard Penetration Test	CP	Cable Percussion
P	Piston Sample	TCR	Total Core Recovery	C	Cone Penetration Test	RO	Rotary Open Hole
TW	Thin Wall Sample	SCR	Solid Core Recovery	32	N for full 300mm penetration	RC	Rotary Cored
D	Small Disturbed Sample	RQD	Rock Quality Designation	/175	For given penetration (mm)	SO	Sonic Open holed
B	Bulk Disturbed Sample	FI	Fracture Index	/25#	Seating blows only (mm)	CONP	Continuous Percussion
LB	Large Bulk Disturbed Sample	NI	Non Intact	PP	Pocket Penetrometer Test	WLS	Windowless Sampler
W	Water Sample	U*	Blows to drive U100 / U86	IPID	In-situ Photo-Ionisation Detector (ppm)	Installation	
G	Gas Sample	UT	Thin wall undisturbed sample	L	Packer Test (Lugeons)		Slotted Pipe / Sand Filter
C	Core	NA	Not Applicable	IV	Insitu Vane Test. Peak		Piezometer Tip / Bentonite Seal
J	Amber Jar Sample	NR	No Recovery	IVR	Insitu Vane Test. Residual		Grout / Gravel Filter
V	Vial Sample	NP	No Penetration	HV	Hand Vane Test. Peak		Concrete
		OH	Open Hole Drilling	HVR	Hand Vane Test. Residual		

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BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No BF78-A
Sheet 2 of 2
Status Final
18/05/2012

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	10/03/2012	Initial Boring Diameter:	160mm	Coordinates:	E 230037.600 m National Grid
Date Complete:	10/03/2012	Initial Core Diameter	86mm		N 823930.400 m National Grid
Hole Type:	RC	Rotary Casing Type	Robit	Ground Level:	310.20 m OD
Equipment:	Boart DB520	Core Barrel:	T2101	Plunge:	90 °
		Core Bit:	Diamond Impreg	Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install -ation
Very strong grey and locally dark grey fine to medium grained PSAMMITE, mostly fresh with some mineral infill and surface staining along joints and fractures. Occasional micaceous bands and thinly foliated mica schist bands throughout. 10-15mm crystalline quartz veins throughout. Joints are inclined between 74deg and 85deg, closely spaced, planar, smooth, tight with dark green and dark grey surface staining and occasional crystalline quartz infill. At 8.50m to 10.80m, fractured bands.				8.50-9.50				100 (10) 0	10 NI	
				9.50-10.50				100 (5) 0	NI	
				10.50-11.50				100 (35) 30	NI 5	
				11.50-12.50				90 (35) 30	1 NI	
				12.50-13.50				90 (25) 25	3 6	
				13.50-14.50				90 (35) 25	5	
End of Borehole at 14.40 m		14.40	295.80							

U	Undisturbed U100 / U86 Sample	Core Run		S	Standard Penetration Test	CP	Cable Percussion
P	Piston Sample	TCR	Total Core Recovery	C	Cone Penetration Test	RO	Rotary Open Hole
TW	Thin Wall Sample	SCR	Solid Core Recovery	32	N for full 300mm penetration	RC	Rotary Cored
D	Small Disturbed Sample	RQD	Rock Quality Designation	/175	For given penetration (mm)	SO	Sonic Open holed
B	Bulk Disturbed Sample	FI	Fracture Index	/25#	Seating blows only (mm)	CONP	Continuous Percussion
LB	Large Bulk Disturbed Sample	NI	Non Intact	PP	Pocket Penetrometer Test	WLS	Windowless Sampler
W	Water Sample	U*	Blows to drive U100 / U86	IPID	In-situ Photo-Ionisation Detector (ppm)	Installation	
G	Gas Sample	UT	Thin wall undisturbed sample	L	Packer Test (Lugeons)	Slotted Pipe	Sand Filter
C	Core	NA	Not Applicable	IV	Insitu Vane Test. Peak	Piezometer Tip	Bentonite Seal
J	Amber Jar Sample	NR	No Recovery	IVR	Insitu Vane Test. Residual	Grout	Gravel Filter
V	Vial Sample	NP	No Penetration	HV	Hand Vane Test. Peak	Concrete	
		OH	Open Hole Drilling	HVR	Hand Vane Test. Residual		

bam ritchies

BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No BF79C-A
Sheet 1 of 2

Status Final
20/12/2011

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	28/10/2011	Initial Boring Diameter:	160mm	Coordinates:	E 229893.075 m National Grid
Date Complete:	29/10/2011	Initial Core Diameter	86mm		N 823547.940 m National Grid
Hole Type:	RO+RC	Rotary Casing Type	Robit	Ground Level:	311.06 m OD
Equipment:	DB520 Boart	Core Barrel:	T2-101	Plunge:	90 °
		Core Bit:	Diamond Impreg	Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install -ation
Very soft spongy dark brown pseudo-fibrous PEAT.										
Orangish brown silty gravelly fine to coarse SAND with occasional cobbles. Gravel is angular to sub rounded fine to coarse of psammite. Cobbles are angular to sub angular of psammite.		0.80	310.26							
Dense SAND & GRAVEL (Driller's description) (Open holed)		1.50	309.56			C	31			
Dense SAND (Driller's description) (Open holed).		2.00	309.06			C	30			
Weak brownish grey fine to medium grained PSAMMITE, recovered as silty sandy angular to sub angular fine to coarse gravel. Occasional patches of orange staining.		4.00	307.06	4.00-5.00				65 (0) 0	NI	
				5.00-6.00				70 (0) 0	NR	
				6.00-7.00				55 (0) 0	NI	
				7.00-8.00				75 (0) 0	NR	
Continued next sheet									NI	

U	Undisturbed U100 / U86 Sample	▪	Core Run	S	Standard Penetration Test	CP	Cable Percussion
P	Piston Sample	TCR	Total Core Recovery	C	Cone Penetration Test	RO	Rotary Open Hole
TW	Thin Wall Sample	SCR	Solid Core Recovery	32	N for full 300mm penetration	RC	Rotary Cored
D	Small Disturbed Sample	RQD	Rock Quality Designation	/175	For given penetration (mm)	SO	Sonic Open holed
B	Bulk Disturbed Sample	FI	Fracture Index	/25#	Seating blows only (mm)	CONP	Continuous Percussion
LB	Large Bulk Disturbed Sample	NI	Non Intact	PP	Pocket Penetrometer Test	WLS	Windowless Sampler
W	Water Sample	U*	Blows to drive U100 / U86	K	Permeability Test (m/s)	Installation	
G	Gas Sample	UT	Thin wall undisturbed sample	L	Packer Test (Lugeons)		Slotted Pipe / Sand Filter
C	Core	NA	Not Applicable	IV	Insitu Vane Test. Peak		Piezometer Tip / Bentonite Seal
J	Amber Jar Sample	NR	No Recovery	IVR	Insitu Vane Test. Residual		Grout / Gravel Filter
V	Vial Sample	NP	No Penetration	HV	Hand Vane Test. Peak		Concrete
				HVR	Hand Vane Test. Residual		

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BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No BF79C-A
Sheet 2 of 2
Status Final
20/12/2011

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	28/10/2011	Initial Boring Diameter:	160mm	Coordinates:	E 229893.075 m National Grid
Date Complete:	29/10/2011	Initial Core Diameter	86mm		N 823547.940 m National Grid
Hole Type:	RO+RC	Rotary Casing Type	Robit	Ground Level:	311.06 m OD
Equipment:	DB520 Boart	Core Barrel:	T2-101	Plunge:	90 °
		Core Bit:	Diamond Impreg	Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install -ation
Weak brownish grey fine to medium grained PSAMMITE, recovered as silty sandy angular to sub angular fine to coarse gravel. Occasional patches of orange staining. Between 8.00m and 9.00m, becomes locally strong.				8.00-9.00				85 (18) 0	NI	
				9.00-10.00				65 (0) 0	NR	
From 10.00m, rare intact sections with micaceous bands.				10.00-11.30				100 (28) 15		
				11.30-12.20				100 (0) 0		
				12.20-13.00				100 (21) 0	NI	
				13.00-13.70				100 (0) 0		
From 13.40m to 13.85m, band of pink crystalline quartz.				13.70-14.80				100 (30) 30		
		13.85	297.21							
Strong to very strong pink fine to medium grained PSAMMITE with some micaceous bands. Mostly recovered non intact as angular to sub angular fine to coarse gravel with some intact sections. Bedding fractures are inclined at 35deg, planar, smooth, tight and clean.				14.80-16.00				100 (0) 0		
End of Borehole at 16.00 m		16.00								

U	Undisturbed U100 / U86 Sample	Core Run	S	Standard Penetration Test	CP Cable Percussion
P	Piston Sample	TCR Total Core Recovery	C	Cone Penetration Test	RO Rotary Open Hole
TW	Thin Wall Sample	SCR Solid Core Recovery	32	N for full 300mm penetration	RC Rotary Cored
D	Small Disturbed Sample	RQD Rock Quality Designation	/175	For given penetration (mm)	SO Sonic Open holed
B	Bulk Disturbed Sample	FI Fracture Index	/25#	Seating blows only (mm)	CONP Continuous Percussion
LB	Large Bulk Disturbed Sample	NI Non Intact	PP	Pocket Penetrometer Test	WLS Windowless Sampler
W	Water Sample	U* Blows to drive U100 / U86	K	Permeability Test (m/s)	Installation
G	Gas Sample	UT Thin wall undisturbed sample	L	Packer Test (Lugeons)	Slotted Pipe / Sand Filter
C	Core	NA Not Applicable	IV	Insitu Vane Test. Peak	Piezometer Tip / Bentonite Seal
J	Amber Jar Sample	NR No Recovery	IVR	Insitu Vane Test. Residual	Grout / Gravel Filter
V	Vial Sample	NP No Penetration	HV	Hand Vane Test. Peak	Concrete
			HVR	Hand Vane Test. Residual	

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BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No
BF79C-B
Sheet 1 of 1

Status
Final
20/12/2011

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	29/10/2011	Initial Boring Diameter:	160mm	Coordinates:	E 229901.400 m National Grid
Date Complete:	29/10/2011	Initial Core Diameter			N 823544.813 m National Grid
Hole Type:	RO	Rotary Casing Type	Robit	Ground Level:	311.51 m OD
Equipment:	DB520 Boart	Core Barrel:		Plunge:	90 °
		Core Bit:		Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install -ation
Very soft spongy dark brown pseudo-fibrous PEAT.										
SAND & GRAVEL (Driller's description)		0.70	310.81							
SAND (Driller's description) (Open holed).		2.00	309.51							
PSAMMITE, weathered and broken. (Driller's description) (Open holed)		3.90	307.61							
End of Borehole at 6.00 m		6.00	305.51							

U	Undisturbed U100 / U86 Sample		Core Run	S	Standard Penetration Test	CP	Cable Percussion
P	Piston Sample	TCR	Total Core Recovery	C	Cone Penetration Test	RO	Rotary Open Hole
TW	Thin Wall Sample	SCR	Solid Core Recovery	32	N for full 300mm penetration	RC	Rotary Cored
D	Small Disturbed Sample	RQD	Rock Quality Designation	/175	For given penetration (mm)	SO	Sonic Open holed
B	Bulk Disturbed Sample	FI	Fracture Index	/25#	Seating blows only (mm)	CONP	Continuous Percussion
LB	Large Bulk Disturbed Sample	NI	Non Intact	PP	Pocket Penetrometer Test	WLS	Windowless Sampler
W	Water Sample	U*	Blows to drive U100 / U86	K	Permeability Test (m/s)	Installation	
G	Gas Sample	UT	Thin wall undisturbed sample	L	Packer Test (Lugeons)		Slotted Pipe / Sand Filter
C	Core	NA	Not Applicable	IV	Insitu Vane Test. Peak		Piezometer Tip / Bentonite Seal
J	Amber Jar Sample	NR	No Recovery	IVR	Insitu Vane Test. Residual		Grout / Gravel Filter
V	Vial Sample	NP	No Penetration	HV	Hand Vane Test. Peak		Concrete
				HVR	Hand Vane Test. Residual		

bam ritchies

BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No
BF79C-C
Sheet 1 of 1

Status
Final
20/12/2011

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	29/10/2011	Initial Boring Diameter:	160mm	Coordinates:	E 229898.309 m National Grid
Date Complete:	29/10/2011	Initial Core Diameter			N 823536.423 m National Grid
Hole Type:	RO	Rotary Casing Type	Robit	Ground Level:	311.64 m OD
Equipment:	DB520 Boart	Core Barrel:		Plunge:	90 °
		Core Bit:		Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install -ation
Very soft spongy dark brown pseudo-fibrous PEAT.										
SAND & GRAVEL (Driller's description)		0.60	311.04							
SAND (Driller's description) (Open holed).		1.80	309.84							
PSAMMITE, weathered. (Driller's description) (Open holed)		3.80	307.84							
End of Borehole at 6.00 m		6.00	305.64							

U	Undisturbed U100 / U86 Sample	▪	Core Run	S	Standard Penetration Test	CP	Cable Percussion
P	Piston Sample	TCR	Total Core Recovery	C	Cone Penetration Test	RO	Rotary Open Hole
TW	Thin Wall Sample	SCR	Solid Core Recovery	32	N for full 300mm penetration	RC	Rotary Cored
D	Small Disturbed Sample	RQD	Rock Quality Designation	/175	For given penetration (mm)	SO	Sonic Open holed
B	Bulk Disturbed Sample	FI	Fracture Index	/25#	Seating blows only (mm)	CONP	Continuous Percussion
LB	Large Bulk Disturbed Sample	NI	Non Intact	PP	Pocket Penetrometer Test	WLS	Windowless Sampler
W	Water Sample	U*	Blows to drive U100 / U86	K	Permeability Test (m/s)	Installation	
G	Gas Sample	UT	Thin wall undisturbed sample	L	Packer Test (Lugeons)		Slotted Pipe / Sand Filter
C	Core	NA	Not Applicable	IV	Insitu Vane Test. Peak		Piezometer Tip / Bentonite Seal
J	Amber Jar Sample	NR	No Recovery	IVR	Insitu Vane Test. Residual		Grout / Gravel Filter
V	Vial Sample	NP	No Penetration	HV	Hand Vane Test. Peak		Concrete
				HVR	Hand Vane Test. Residual		

bam ritchies

BOREHOLE LOG

Beauly - Denny 400kv OHL

Borehole No BF79C-D
Sheet 1 of 1
Status Final
20/12/2011

Client: Scottish & Southern Energy plc

Consultant: Balfour Beatty Utility Solutions

Job No: 4578

Date Started	29/10/2011	Initial Boring Diameter:	160mm	Coordinates:	E 229889.930 m National Grid
Date Complete:	29/10/2011	Initial Core Diameter			N 823539.621 m National Grid
Hole Type:	RO	Rotary Casing Type	Robit	Ground Level:	311.19 m OD
Equipment:	DB520 Boart	Core Barrel:		Plunge:	90 °
		Core Bit:		Scale:	1:50

Description of Strata	Legend	Depth	Reduced Level	Sampling/ Core Run	U	In Situ Testing Test	In Situ Testing Result	TCR (SCR) RQD	FI	Install -ation
Very soft spongy dark brown pseudo-fibrous PEAT.										
		0.60	310.59							
SAND & GRAVEL (Driller's description)										
		1.70	309.49							
SAND (Driller's description) (Open holed).										
		3.60	307.59							
PSAMMITE, weathered. (Driller's description) (Open holed)										
		6.00	305.19							
End of Borehole at 6.00 m										

U	Undisturbed U100 / U86 Sample		Core Run	S	Standard Penetration Test	CP	Cable Percussion
P	Piston Sample	TCR	Total Core Recovery	C	Cone Penetration Test	RO	Rotary Open Hole
TW	Thin Wall Sample	SCR	Solid Core Recovery	32	N for full 300mm penetration	RC	Rotary Cored
D	Small Disturbed Sample	RQD	Rock Quality Designation	/175	For given penetration (mm)	SO	Sonic Open holed
B	Bulk Disturbed Sample	FI	Fracture Index	/25#	Seating blows only (mm)	CONP	Continuous Percussion
LB	Large Bulk Disturbed Sample	NI	Non Intact	PP	Pocket Penetrometer Test	WLS	Windowless Sampler
W	Water Sample	U*	Blows to drive U100 / U86	K	Permeability Test (m/s)	Installation	
G	Gas Sample	UT	Thin wall undisturbed sample	L	Packer Test (Lugeons)		Slotted Pipe / Sand Filter
C	Core	NA	Not Applicable	IV	Insitu Vane Test. Peak		Piezometer Tip / Bentonite Seal
J	Amber Jar Sample	NR	No Recovery	IVR	Insitu Vane Test. Residual		Grout / Gravel Filter
V	Vial Sample	NP	No Penetration	HV	Hand Vane Test. Peak		Concrete
				HVR	Hand Vane Test. Residual		